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ABSTRACT

The study attempted to decrease the talking-out behavior and increase the pre-writing skills of a 7-year-old educable mentally retarded boy in a special school for children with orthopedic handicaps. Differential reinforcement of other (DRO) behaviors was used during 30 minutes a day four times a week. Appropriate behaviors of the subjects and other students in the class were reinforced with praise. All inappropriate behaviors were ignored. A program of decreasing assistance moving from physical guidance to verbal prompts to no cues was used to increase the pre-writing behavior. Each successful attempt at any phase of the cuing was praised. The intervention resulted in decreasing talking-out behavior from 84% to 7% and increasing pre-writing behaviors from 8% to 100%. (DB)

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Decreasing Talking-Out and Increasing Academic Behavior in a 7-year-old Child

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INTRODUCTION

The purpose of this study is to decrease the talking-out behavior of a seven year old boy through the use of a differential reinforcement of other behaviors system (DRO) using praise as the reinforcer. While reducing the inappropriate talking-out behavior, the subject's pre-writing skills will be increased through a program of decreasing assistance combined with praise. For the purpose of this study, talking-out can be defined as audible vocally produced sounds directed towards the teacher, other students or self during a time in which the student should be working or listening. Pre-writing skills include tracing lines, patterns, or letters, and connecting dotted lines, patterns, or letters to improve eye-hand coordination and provide readiness for manuscript writing. Praise will be used as the reinforcer for both behaviors because it is one of the least intrusive forms of intervention.

METHODS

One of nine children in a class for students who are orthopedically handicapped and educable mentally retarded (EMR) in a special school for students with orthopedic handicaps served as the subject. The subject was 7 -years-old and had been diagnosed as cerebral palsied and brain damaged. He has good oral language skills, but little concept development has occured. The subject has a problem with keeping midline and poor fine motor skills. He had been in the present setting for two months before the study began. In this time, no real program to reduce his inappropriate behavior was initiated. He was periodically

reprimanded for inappropriate behaviors which occured.

The study was conducted in the subject's classroom four days a week for thirty minutes each day. These thirty minutes occured after breakfast during the independent writing period. At this time, the entire class was seated in desks at the front of the room. Other equipment necessary for the program included a cue tape, a tape recorder, and a recording sheet as well as pre-writing activity sheets.

Basically, two interventions were used in this program. The intervention which was used to reduce the subject's talking-out behavior was a DRO system. The appropriate behaviors of the subject and the students in the class were reinforced with praise. All of the inappropriate behaviors were ignored. The intervention which was used to increase the pre-writing behavior was a program of decreasing assistance moving from physical guidance to verbal prompts to no cues. Each successful attempt in any phase of the cuing was praised.

During the study, the student teacher controlled the independent writing period and implemented the program. Data for the talking-out behavior was taken using a partial interval time sampling plan. The interval used was two minutes. If the subject exhibited the talking-out behavior at any time during the interval, he was scored a plus for the entire interval on the recording sheet. If the subject was silent for the entire interval or was called upon to talk, he scored a minus on the recording sheet. Data for the academic behavior was taken using a permanent product response count. A ratio of the number of correct responses over the entire number of problems was calculated for this purpose. Reliability was

assessed once during baseline and once during intervention. It was calculated by dividing the total number of agreements by the total number of agreements plus disagreements and multiplying by one hundred.

Before intervention began, three days of baseline data were taken. During this time, the student teacher collected the data while following the regular classroom routine. The subject was given a pre-writing task to complete and his inappropriate behaviors were periodically reprimanded. Once baseline was completed, the student teacher explained the expectations of the program to the subject. At this point, intervention began and data was collected for eleven days.

RESULTS

Figure 1 shows the changes of percentage levels of the talking-out and pre-writing behaviors during morning independent writing time under baseline and intervention conditions. During the three day baseline period, the rate of talking-out averaged 84% and the pre-writing behavior averaged 8%. Application of the intervention strategies produced the desired results in a short period of time.

After instituting the DRO system with praise as the reinforcer, the talking-out behavior decreased from 84% to 33% in three days. By day eight of the intervention, the talking-out behavior had decreased to 7%. This level was maintained for the duration of the study.

After instituting the decreasing assistance program combined with praise, the pre-writing behavior increased from 8% to 50% in three days. By day eight of the intervention, the pre-writing behavior had increased to 100%. This level was also maintained for the duration of the study.

Reliability data was taken once during baseline and once during intervention to insure the accuracy of the program implementor and the validity of the study. The reliability found for the talking-out behavior was 96% and the reliability for the pre-writing behavior was 100%.

DISCUSSION

The use of the DRO model involving praise and a decreasing assistance program also using praise proved very successful in this study. The subject was very responsive to praise. Early in the intervention phase of the program, the subject began to raise his hand constantly. It did not matter whether he needed assistance or not. The subject seemed to be testing the integrity of the program implementor and the worth of hand raising to get assistance when required. After a few days, this effect discontinued and the program progressed more smoothly.

A DRO system was chosen to decrease the talking-out behavior in this study because it is relatively easy to implement. The only requirement for delivering reinforcement under DRO is that the subject not be emitting the particular inappropriate behavior (Kelly, & Bushell, 1987). Such a system was used to

reduce talking-out with five second grade girls and was effective. Although the subject being studied was a mentally retarded male, the simplicity of the design made it easy to implement during a period in which nine students were working independently on nine different assignments. Such a system also provides for a more positive, achievement-oriented environment (Blankenship, 1986). This type of setting is conducive to learning and more enjoyable to be in. The DRO is also nonintrusive because it requires minimal teacher time, causes little distraction, and draws minimal attention to the inappropriate behavior, while successfully reducing future occurences (Stainback, Stainback, Etscheidt & Doud, 1986). A program which reinforces appropriate behaviors of all students could also lead to modelling and positive peer pressure. Praise was chosen as the reinforcer to help provide for the nonintrusive environment. Praise is a social reinforcer. Therefore it is more natural to encounter praise in the classroom as well as in the world. The use of a social reinforcer such as praise to change a behavior helps eliminate the need for a "prize" whenever an appropriate behavior is exhibited as well as avoiding unnecessary competition and jealousies among the students. Such procedures also show that a teacher is not "cold" but rather concerned and caring (Axelrod, 1983).

A method of decreasing assistance was used to increase the pre-writing behavior because the subject was a low-functioning EMR student. Stating the directions alone did not prove to be enough during baseline. This can be seen in his low productivity rate during this period of time. Decreasing assistance

allows the student to have a guide to follow early in the task and gradually become independent as proficiency increases (Schoen, 1986). In the early stages of intervention, physical cues were necessary for the subject to complete the task. After four consecutive attempts with physical prompts had been mastered, verbal cues were used. After four consecutive attempts using verbal cues, no prompt was given. By the middle of the intervention period, physical cues were no longer necessary for the subject to correctly complete the task. On the final two days of the study, no verbal cues were given and the subject correctly completed the task. This move towards independence was very impressive.

This study showed that praise of appropriate behaviors can cause amazing strides in decreasing inappropriate behaviors of a 7 year-old EMR boy. When praise is coupled with response priming in the form of decreasing assistance, an academic behavior such as pre-writing skills can increase dramatically.

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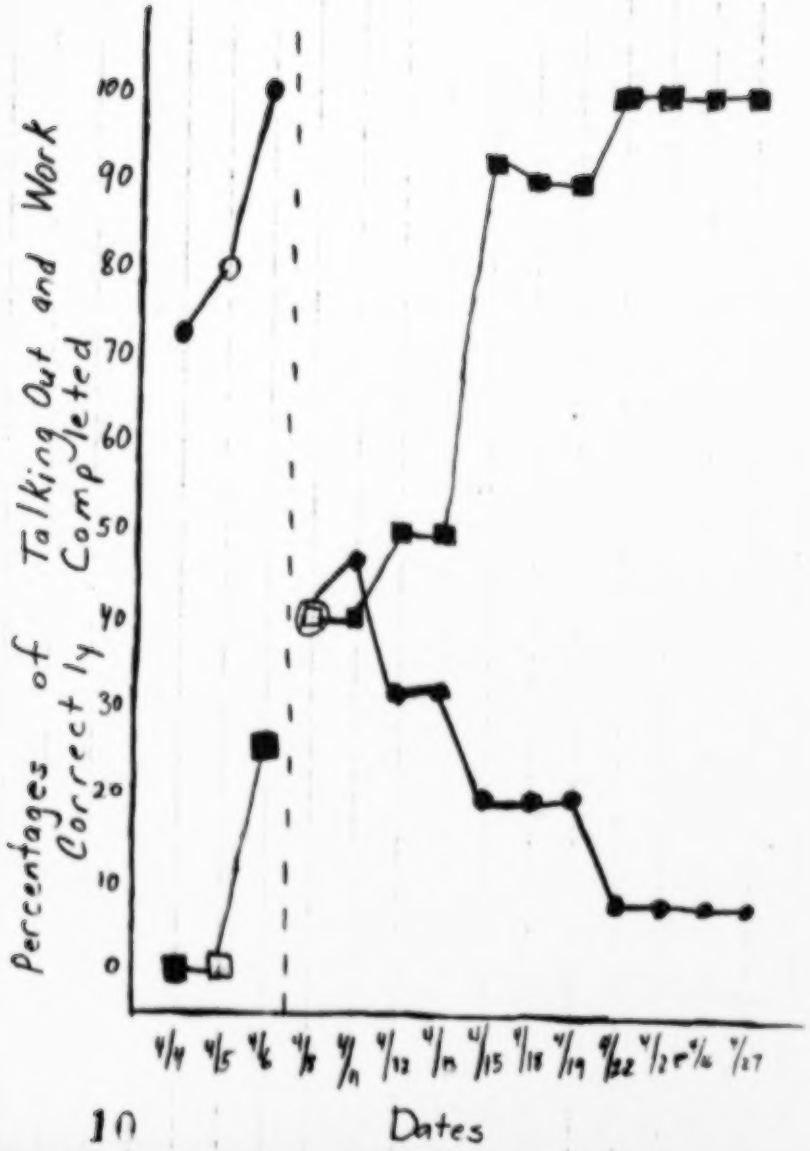
Figure 1



KEY

- ● Percentage of talking out behavior
- ○ Reliability check for talking out
- ■ Percentage of work completed correctly
- □ Reliability check for correct work